Canadian Stock Assessment
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PROCEEDINGS OF PEER REVIEW AND CLIENT CONSULTATIONS

FOR DIADROMOUS FISH STOCKS (GASPEREAU)

IN THE MARITIME PROVINCES

IN 1996

DIADROMOUS FISH DIVISION
MARITIMES REGION
343 ARCHIBALD STREET
MONCTON, N.B.
EIC 9B6

APRIL 1997

Fisheries and Oceans Science
Pêches et Océans
Canada

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PROCEEDINGS OF PEER REVIEW AND CLIENT CONSULTATIONS

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ABSTRACT

This report summarizes the proceedings of the peer review meeting for assessing the status of the Region's gaspereau stocks and the non-salmonid diadromous fish stocks on Prince Edward Island. The review took place April 1-2, 1997, at the Gulf Fisheries Centre, Moncton, New Brunswick. Available information were detailed in five stock assessment working papers which were reviewed by both designated referees and others participating in the review. Comments and concerns expressed during the review, with the author's responses, are summarized in the rapporteur reports contained within. These reports also detail the research and management recommendations and, as applicable and feasible, the management advice for both the coming year and the long term. Part II of this report contains the written records of client consultation meetings at which both the status of the stocks and future management considerations were discussed.

RÉSUMÉ

Le présent rapport expose sommairement les délibérations de la réunion d'examen par les pairs tenue dans le cadre de l'évaluation des stocks de gaspareau de la Région et des stocks de poissons diadromes autres que les salmonidés à l'Île-du-Prince-Édouard. L'examen a eu lieu les 1er et 2 avril 1997 au Centre des pêches du Golfe, à Moncton (Nouveau-Brunswick). Les renseignements disponibles ont été exposés en détail dans cinq documents de travail sur l'évaluation des stocks, qui ont été étudiés par les arbitres désignés et par les autres personnes participant à l'examen. Les observations et préoccupations exprimées durant l'examen ainsi que les réponses des auteurs sont résumées dans les documents du rapporteur contenus dans le présent rapport. Ces documents décrivent aussi en détail les recommandations concernant la recherche et la gestion, et dans la mesure du possible, s'il y a lieu, les avis de gestion pour l'année à venir et à plus long terme. La partie II du rapport contient un compte rendu des réunions de consultation avec les clients, au cours desquelles on a discuté de l'état des stocks et de la gestion future.

Part I

Peer Review

INTRODUCTION

This report provides records of the peer review meeting for assessing the status of the Region's gaspereau stocks, plus the non-salmonid diadromous stocks on Prince Edward Island, in 1996. Also included are records of the client consultation meetings held in regard to these stocks.

The Peer Review took place April 1-2, 1997 at the Gulf Fisheries Centre, Moncton, New Brunswick. Participants numbered 15. The letter of invitation to clients and other interests outside DFO and both mailing and attendance lists are attached in appendices 1.1, 1.2 and 1.4.

Five stock assessment documents were reviewed during the two-day peer review session (see Agenda in Appendix 1.5). Nine referees contributed to the review of the 5 working papers (letter of invitation with instructions and list of referees attached in appendix 1.1 and 1.3). Four of the papers were formally reviewed by two referees. The comments and concerns expressed by both the referees and those in attendance, with the author's responses, are summarized in the rapporteur reports prepared for each of the 5 working papers presented and are detailed in Peer Review pages 2-10 of this report. These same reports detail the research and management recommendations and, as applicable and feasible, the management advice for both the coming year and the long term.

Part II contains the written records of the client consultation meetings. At these consultations both Science and management issues were discussed to provide a status report on the stocks to clients.

GASPEREAU

Margaree Gaspereau

Rapporteur: **Paul LeBlanc**

Working Paper Title: **Margaree Gaspereau, Cape Breton**

Author(s): **Gerald Chaput et al.**

Referees: **Ross Claytor**
Larry Marshall

Introduction:
The Margaree River gaspereau stock has been assessed since 1983. The objectives of this assessment are to evaluate the exploitation rates in the 1995 and 1996 fisheries relative to target reference levels. Data used in the assessment include logbook reports, two-stage stratified sampling, and estimates of harvest by telephone survey. Exploitation rates between 1983 and 1994 were equal to or in excess of target exploitation rates. The management plan implemented during the 1996 fishery reduced potential fishing effort by 57% from the pre-1984 period. Harvests during 1996 were less than half of the 1995 harvest and the lowest on record since 1983. A decrease in exploitation rate during 1996 compared to previous years as well as an increase in larval abundance in Lake Ainslie indicate that escapement had increased over 1995.

Concerns:
Referees:

1. It was agreed that the management plan implemented during the 1996 fisheries reduced exploitation rate.
2. Would like clarification on what target is. Suggested that one F and M value be picked and show confidence limits.
3. Should pick a conservative target because the biomass of the stock is decreasing.
4. Could look at fishery effects to decide what the target should be. Three previous management plans could be examined.
5. Pick a terminal F value and apply it back through the fishery, this will give you a better estimate of incomplete cohorts.
6. Exploitation rates should be put in a table format.
7. Provide relative areas for Lake Ainslie and Loch Ban.
8. How do gaspereau larvae densities for Lake Ainslie compare to the densities experienced in the Northeast US lake environments?
9. Because fishers logbooks only account for days the fishery is open, is it possible that fishers could have missed a part of the overall run? If so, how would that affect your estimates of returns?
10. How many logbooks are necessary before the Leslie method give a significant answer? Is

there a future for the Lesslie method both practically and statistically? If not, does that mean that our only approach to a current year assessment is a count or mark-recapture?

11. Explain why gonad wt and no. females are not significant relative to total spawners.
12. The Leslie depletion estimates are very close to the cohort summation estimates, explain in terms of the 2-5 fold differences shown for escapement. Why did you discount the Leslie estimates and choose estimated total returns from cohorts?
13. Would it be worthwhile to review the utility of the larval data in forecasting returns? Would it offer support your statement re:<1 million fish not giving large recruitment over the next 4-5 years?
14. Do we know enough about the technique of mark-recapture on gaspereau to provide confident escapement estimates? If mark-recapture is going to continue be used to provide estimates of escapement, an evaluation of the proposed mark-recapture technique against a complete count should be done.
15. What will be the future requirements for assessing this stock?
16. Should check weight at age in the future.
17. Has the proportion of fish sampled in the commercial fishery remained the same even with a decrease in the harvest?
18. Is the high percentage of repeat spawners in 1995 due to the fact that the number of repeat spawners have increased or that recruits have declined?

Others:

1. Should look at larval abundance project in more detail (statistically, methodology, etc.) if it is going to be adopted as an assessment tool.
2. Offshore fishery at Capstick Bay (Dingwall) historically has had high catches of gaspereau bycatch.
3. Can Loch Ban index give representative numbers of larvae for entire lake? Show confidence intervals on density estimates.
4. Is current target in place in order for the fishery to recover from it's current low level or is it to maintain recovered fishery?
5. Based on 1996 management plan the fishery exploitation was close to the target, however this is only partly due to the fact that approximately 30% of potential licenses actively fished. If all potential licenses fished under the same management plan, the target would likely be exceeded.

Recommendations

1. Make logbooks part of condition of license.
2. Indicate number days and hours of fishing effort permitted to maintain target if all potential licenses are fished.
3. Obtain an independent estimate of escapement into Lake Ainslie using total counts or mark-recapture techniques.

Fisheries Management Advice

1. Should maintain target of 33% to 40%.
2. No increase in fishing effort over last year.

DATE: April 4, 1997

GASPEREAU

Atlantic and Scotia-Fundy Gaspereau

Rapporteur: **Ross Jones**

Working Paper Title: **The Status to 1996 of Alewife and Blueback Herring Stocks in Scotia-Fundy Area as Indicated by Catch-Effort Statistics.**

Author(s): **Brian Jessop**

Referees: **Heath Stone**
Peter Amiro

Introduction:
This report updates the landings and catch-per-unit-effort data for various alewife and blueback herring stocks in the Scotia-Fundy area. Major stocks occur in the Saint John, Tusket, Mersey-Medway, and LaHave rivers. Landings are reported by two methods. The traditional method uses landings from purchase slips and estimated landings from Supplementary B slips that are collated by Statistics Branch. The second method uses a logbook program (mandatory since 1993), initiated by Science Branch, where fishermen report their daily catch and effort. The commercial fishery may use trapnets, gillnets, or dipnets depending upon the river system.

Concerns:
Referees:

1. Is it possible that historic landings were even higher than indicated by sales statistics due to private sales which went unrecorded? If so, historic landings may have been higher than perceived.
2. In examining gaspereau survival during the marine phase, it may be appropriate to try and relate catches to the thickness or distribution of the warm bottom layer on the Scotian Shelf Slope and in the Central Shelf region rather than Halifax Harbour surface water temperature. Data from groundfish surveys suggest that alewives over-winter in these areas. Other possibilities may be examination of data from the "Prince 5" hydrographic monitoring station and the bycatch of gaspereau on the Scotian Shelf in the silver hake fishery.
3. Is it possible to have a dock side monitoring program for gaspereau?
4. Statements made regarding trends of catch and catch rates are not validated by any statistical analyses. At least these analyses are not presented in the working paper.
5. What are we assessing against? A long term mean? What are the conservation requirements for gaspereau? Based on the information presented, what can we tell management?
6. In general, statements made such as "Fishing up", "Recruit Overfishing" and "Fishery will not improve" are not supported by any data and/or analysis.
7. When possible, catch rates should be adjusted for the number of gear units (i.e. total fathoms of netting, total traps fished), since they vary annually.

GASPEREAU

Atlantic and Scotia-Fundy Gaspereau

Others:

1. Using the logbook information, would it be possible to break down the information by stock rather than FSD's?
2. Is there any historical biological information for any of these rivers?
3. The Shubenacadie River should be added to Table 5, as catches are also declining on that system.

Recommendations:

1. Since the Saint John River stock is the largest stock in the Scotia-Fundy area and landings are comparable to the Miramichi fishery, it is recommended a full analytical assessment be done in the future. This could include sampling of the down river fishery and the possible initiation of an index fishermen program for each of the sub-stocks. Since there are problems associated with VPA's in assessing anadromous stocks, it may be possible to use a non-equilibrium production model approach to determine relative biomass and relative F and also make some projections.
2. Leaflet and/or document should include figures of catch rates by gear for the major rivers.
3. Collection of some baseline biological data on the bigger systems such as Saint John, Tusket and LaHave.
4. Get some feedback from industry regarding what they perceive as necessary for the fishery.

Fisheries Management Advice:

1. Catches from most gaspereau stocks are presently much below their long-term mean. Factors other than overfishing may be reducing gaspereau returns. For example, returns of gaspereau to the Mactaquac Dam fishway have recently been lower than expected relative to the achieved spawning escapements, perhaps due to abnormal or altered freshwater or marine environmental conditions. It is recommended that there be no increase in fishing effort in any gaspereau fishery. Catch rates for most rivers show a declining trend from 1988 to 1995. The slight upward trend in CPUE in 1996 for most rivers is encouraging but is of uncertain meaning.

DATE: April 1, 1997

GASPEREAU

Mactaquac Gaspereau

Rapporteur: **Gary Atkinson**

Working Paper Title: **Mactaquac Gaspereau**

Author(s): **Brian Jessop**

Referees: **Heath Stone**
David Cairns

Introduction:
Anadromous alewives and blueback herring, commonly called gaspereau, support an important commercial fishery on the Saint John River, New Brunswick. The present management plan provides for a spawning escapement of 800,000 alewives and 200,000 bluebacks to the headpond above the Mactaquac Dam. Returns relative to escapement and harvest in the fishery prosecuted at the dam have declined in recent years, the latter currently accounting for about six percent of the total river harvest.

Concerns:
Referees:
1. Stock-recruit relationships are the crux of the paper, but correlations were done in different ways and it is not made clear how these were used to predict returns.
2. It has not been stated by what criteria "outliers" have been excluded from the analyses.
3. A table presenting the results of the regression analyses should be included.
4. Turbine mortality at the dam cannot be assumed constant. Since variable mortality would make prediction of returns more difficult, ways to quantify this should be sought.
5. Clarify whether the current escapement regime should be maintained, or deliberately manipulated to observe the effect.
6. Declining productivity in the headpond suggests the increased important of downriver production areas. This, combined with the fact that the downriver harvest of gaspereau is more than 80% of total river harvest, indicates that more effort should be spent sampling the lower river fishery.
7. Cooling of Scotian Shelf bottom temperatures during the late 1980s and early 1990s relates to low returns reported in those years. It was suggested that an examination of gaspereau condition factors for that time period might indicate an environmental effect on returns.

Others:
1. Since all stock-recruit relationships presented are linear, there is no means of demonstrating what the optimum escapement for maximum gain might be, relative to the current management escapement regime of 800,000 alewives and 200,000 bluebacks.

GASPEREAU

Mactaquac Gaspereau

2. Concern was expressed that a cohort analysis was not done.
3. It was suggested that turbine mortality might be assessed by examining the proportion of repeat spawners relative to escapement the previous year.

Recommendations

1. Maintain the current level of sampling at Mactaquac Dam.
2. If practicable, initiate a sampling program for the fishery in the lower river.

Fisheries Management Advice

No change for 1997.

DATE: 3 April 1997

GASPEREAU

Miramichi Gaspereau

Rapporteur: **Dave Moore**

Working Paper Title: **Miramichi Gaspereau**

Author(s): **Gérald Chaput**

Referee: **Ross Claytor**

Introduction:
Catch at age tables are presented for the Miramichi gaspereau fishery (alewife and blueback herring) from 1982-96. Backward cohort summation was used to estimate total numbers of alewife and blueback herring for 1982-94.

The age structure and species composition of the gaspereau catch in the Richibucto, Pokemouche, and Tracadie rivers are presented for some of the years from 1989-96

The 1996 fishery in Miramichi, Pokemouche, and Tracadie rivers had reduced catches due to low numbers of recruits from the 1992 year class.

Concerns:
Referee:
1. The target used to measure whether the fishery is over-exploiting the resource, F = M (M=0.4) needs to be examined. A table presenting the results of a Y/R analysis, M, $F_{0.1}$, and F_{opt} would be useful in evaluating the rationale that F should be less than or equal to M.
2. The results of the cohort analysis could be presented as biomass of fish as well as numbers.
3. Changes in catch and fishing effort could be presented over a longer time series to illustrate that effort is currently at lower levels than it has been in the past.
4. The strengths of successive year classes of alewife and bluebacks could be tested for auto-correlations which would indicate a change in marine survival is affecting gaspereau.

Others:
Recommendations
1. The referee concluded that the document was clearly written and its conclusions were valid.

Fisheries Management Advice
1. Gaspereau returns in 1996 were low due the weak 1992 year class. Fishery exploitation was higher than desired and should not be increased.
2. Some of the fishing effort in the Northwest Miramichi River should be encouraged to shift to the Southwest Miramichi River where the gaspereau are not as heavily exploited.

DATE: April 3, 1997

OTHER DIADROMOUS SPECIES

Prince Edward Island

Rapporteur: **Fran Mowbray**

Working Paper Title: **A Biological Review of Commercial Diadromous Fishes of Prince Edward Island.**

Author(s): **David Cairns**

Referees: **Andrea Locke**
Shane O'Neil

Introduction:
PEI's commercial diadromous species are eel, gaspereau, smelt, silverside shad and tomcod. While landings of many of these species has declined in recent years, they still represent a significant part of PEI fisheries. Comprehensive life history investigations are lacking for all these species, and much of the fishery data lacks the level of detail and precision necessary for complete stock assessments. Nonetheless, this document brings together information on landings, catch rates, biological characteristics and electro-fishing results to provide a biological review of the species in question and lend an insight into the present status of the stocks relative to the last two decades.

Concerns:
Referees:
1. It would be useful to include input sources for landings data, i.e. purchase slip, supp. B etc.
2. A record of market price (for market driven fisheries) would be helpful in determining whether changes in catch amounts are due to effort or abundance.
3. Consider separating fisheries (landings) data from other indices under different headings.
4. For eels - give the history and biological significance of the 46 cm length limit.
5. In the future try to document the proportion of catch which may be migrants (yellow vs. silver).
6. Discuss management strategy in context with Maritime's fishery and maritime wide recruitment decline.
7. For gaspereau - comment on the value of fishery statistics since bait fishery catch (supp. B) were not collected since 1994.
8. Try to incorporate information on the geographical distribution of fishing effort and landings for both gaspereau and smelt.
9. All species - include a summary of PEI catches relative to the southern Gulf of St. Lawrence and their trends over time, also management recommendations.

Others:
1. Look at feasibility of an extended logbook program in future years.
2. Consider leaving eel electro-fishing data as densities and generate confidence intervals.

3. Work with other assessment people to generate an index of age or length structure by area, (e.g. PEI, NB. NS).

Recommendations

1. A method of prioritizing work on these species is needed. Suggestions by the author that research be focused on eels was generally accepted.

Fisheries Management Advice

1. Eel - Eel catches on PEI have decreased sharply in the recent years. It cannot be stated that over-fishing is the cause. However, given the steep and continued decline in catch, it is recommended that a very conservative management approach be taken, including measures that substantially reduce catch.
2. Gaspereau - The stock status of gaspereau on PEI is unknown, but it is possible that over-fishing in some rivers may jeopardise stocks. The gaspereau fishery should be managed with caution, and measures that increase exploitation avoided.
3. Silverside - The silverside fishery appears to be sustainable under current circumstances. However, any increase in market demand would likely lead to an expansion of the fishery to new sites, where there is no basis for knowing whether exploitation would be sustainable. For this reason, and because silversides may have an important role in aquatic food chains, the fishery should be managed with caution.
4. Smelt - The status of PEI smelt stocks is uncertain. The fishery should be managed with caution, and measures that increase exploitation should be avoided.

DATE: April 9, 1997

Part II

Consultations

INTRODUCTION

This section of the Report contains the written records of the client consultation meetings. The purposes of these consultations were to provide a status report on the stocks to clients and other interested parties, to gather any additional information and insights that they might contribute, and to seek suggestions on how to improve the assessment in the future. The consultations for these stocks were primarily aimed at finalizing management plans for the coming year, rather than at Science issues.

MARGAREE RIVER GASPEREAU

1. SPECIES / STOCK: Margaree River Gaspereau

- Margaree River Gaspereau

2. ARRANGEMENTS: by DFO Area Office, Antigonish, Nova Scotia

DATE: March 20, 1997
TIME: 18:00 to 22:30
LOCATION: Margaree Forks Fire Hall, Margaree Forks, Nova Scotia

3. FORM OF CONSULTATION (Science Workshop, ZMAC, ETC..)

- Gaspereau Advisory Committee Meeting

4. PARTICIPANTS (Name and Affiliation)

- Leroy MacEachern (Chair), Chief Resource Allocation, Antigonish, Nova Scotia
- Terry Smith, Conservation and Protection, Cheticamp, Nova Scotia
- Gerald Chaput, DFO Science, Diadromous Fish Division, Moncton, New Brunswick
- Paul LeBlanc, DFO Science, Diadromous Fish Division, Moncton, New Brunswick
- Bob Crawford, Nova Scotia Dept. of Fisheries, Antigonish, Nova Scotia
- Fishers and representatives of the Margaree River gaspereau fisheries (about 25 people)

5. NEW INFORMATION BROUGHT FORWARD (what? by who?)-*(Only a brief description is requir*

- Bob Crawford presented results of the 1996 larval sampling program in Lake Ainslie
- Gerald Chaput presented overview of catches, catch-at-age, trends in the gaspereau fishery and populatio levels

6. CONCERNS RAISED BY CLIENTS (include concerns, plus follow-up action/response made or committed). - (*Only a brief description is required*)

- Restrictive management measures in place in 1996 resulted in fewer people fishing, not economically viable
- Requested detailed information on number of trapnets, landings, timing of the catches of the trapnets fishing off Dingwall (4Vn) and perceived to be intercepting important numbers of gaspereau destined for the Margaree River (to be considered for next year's meeting)

7. RECOMMENDATIONS: (*Only a brief description is required*)

a.) Pertaining to Assessment

- Continue the larval sampling in the lake
- Continue assessments to determine when restrictive management on the fishery can be relaxed

b.) Pertaining to next year's workplans

•

Other Concerns:

Gerald Chaput	Gerald Chaput
NAME OF PRESENTER	**NAME OF RAPPORTEUR**

GASPEREAU SWNS

1. SPECIES / STOCK:

- Gaspereau, SWNS

2. ARRANGEMENTS:

DATE: April 4, 1996
TIME: 1000 h
LOCATION: Grand Hotel, Yarmouth, N.S.

3. FORM OF CONSULTATION (Science Workshop, ZMAC, ETC..)

- Shelburne/Yarmouth/Digby Gaspereau Advisory Committee Meeting

4. PARTICIPANTS (Name and Affiliation)

- T. Surette Area Manager SWNS
- A. Clarke DFO
- B. Bagnell DFO Pubnico
- Marshal DFO
- Hartley DFO Shelburne
- G. Stevens DFO Halifax
- B. Jessop DFO Halifax
- T. Maher DFO Halifax
- D. Fraser DFO Halifax
- representatives of Tusket River Dip Netter Assoc., Annis River Gaspereau Assoc., Argyle Dip Netters, Eel Lake Gill Netters, Tusket Dip Netters, Tusket Gill Netters, Argyle Dip Netters, Annis River Dip Netters, Belleville Dip Netters, Yarmouth Gill Netters, SOFFFA, East Shelburne Co. River Assoc., MFWC Afton
- Hunka, T. Martin, A. Francis, C. Francis, G. Lowe NCNS Netukulimkewe'l Commission

5. NEW INFORMATION BROUGHT FORWARD

- T. Surette stated purpose of meeting was to examine setting up a formal advisory committee for the area gaspereau fishery. Proposed terms of reference were distributed for consideration.

6. CONCERNS RAISED BY CLIENTS (include concerns, plus follow-up action/response made or committed).

- Some members noted that, since the committee is proposed, they cannot yet be viewed as members of such a committee.
- NCNS suggested that committee should do more than provide advice and should be actively involved in management in the context of sustainability, new approaches, and greater stakeholder responsibility.
- Request that DFO use increased funds from license fees to support habitat improvement projects.
- Inadequate enforcement of gaspereau fishery regulations was a concern, particularly weekend closure and random illegal fishing.
- Concern over area to be covered by committee and that all stakeholders be represented- Yarmouth, Shelburne, Digby to be included.
- Concern that meeting should have been held earlier, not just before fishery is to begin.

- Advice given by committee should be acted upon. G. Stevens noted that DFO cannot take illegal or unethical advice.
- Terms of reference should be circulated to all stakeholders. G. Stevens will arrange for draft terms of reference to be sent to all gaspereau license holders in Yarmouth, Shelburne, and Digby counties.
- NCNS representative was concerned that the committee would be limited to providing advice and suggested broadening mandate to include concepts of proactive, partnership, individual responsibility, sustainability.
- License holders should be asked to choose when first meeting should be held from months of Nov.-Feb.
- An inquiry was made about the return rate of gaspereau to the Tusket River.
- The ability of DFO to enforce regulations regarding illegal introduction of chain pickerel into new areas was questioned, as was the effect of such introductions on gaspereau stocks.
- Concern was expressed over the licensing, enforcement, and data collection for native fisheries.
- A request was made that no new dip net stands be permitted on the Annis River until after advice can be obtained from the advisory committee.

7. RECOMMENDATIONS:

a.) Pertaining to Assessment

- No formal assessment has been approved for this fishery; an overview of current fishery trends and biological data was presented.
- DFO indicated that no funds were allocated for biological studies in the Tusket River area; liaison is occurring with NS Power Corporation about their plans to assess gaspereau movement through the Lake Vaughn fishway during 1996.

b.) Pertaining to next year's workplans

- Maintain liaison with NS Power Corporation about assessment of Lake Vaughan fishway gaspereau passage.

Other Concerns:

B. M. Jessop — **NAME OF PRESENTER**

A. Sweeney — **NAME OF RAPPORTEUR**

GASPEREAU SWNS

1. SPECIES / STOCK:

- Gaspereau SWNS

2. ARRANGEMENTS:

DATE: March 20, 1997
TIME: 1830 h
LOCATION: Grand Hotel, Yarmouth

3. FORM OF CONSULTATION (Science Workshop, ZMAC, ETC..)

- Shelburne/Yarmouth/Digby Gaspereau Advisory Committee

4. PARTICIPANTS (Name and Affiliation)

- Tim Surette DFO Area Manager SWNS
- Greg Stevens DFO Halifax
- Alan Clarke DFO Yarmouth
- Bill Bagnell DFO Pubnico
- Arnold Muise NSDOF
- Alain Cottreau NS Power
- Larry Hemeon NS Power
- David Fraser DFO/MFWC
- Tim Martin, Roger Hunka NCNS Netukulimkewe'l Commission
- representatives of the Belleville Dipper, Argyle Dipnetter, Annis River Dipnet, Annis River Gaspereau
- Assoc., Tusket River Gaspereau Gill Net, Eel Lake Gillnet, Bell Neck, and Pembroke associations

5. NEW INFORMATION BROUGHT FORWARD

- P. Patten was elected as industry co-chair of the committee for one year; the two co-chairs will alternate meetings
- R. Hunka noted that the purpose of the committee is to provide advice to ensure a sustainable fishery
- A. Cottreau (NSPC) discussed the results of the 1996 count of gaspereau passing the Lake Vaughan fishway

6. CONCERNS RAISED BY CLIENTS (include concerns, plus follow-up action/response made or committed).

- It was agreed that advice should not be recorded if there is no consensus.
- The issue of Belleville North fishing stands was explained by Bill Bagnell, who noted that corrective action will be taken on erroneously issued stand sites.
- A two week season extension was requested for 1997 but was not supported.
- More enforcement was requested for the Annis River. It was noted that if fishers more closely followed regulations ensuring one third of river is open and two day weekend closure re time would be available for other enforcement activities. A 1-800 number for Fishery Officer Assistance was publicized.
- Gaspereau passage in the Lake Vaughan fishway was thought to be hindered by high flows and a reduction was requested by fishers. T. Surrette recommended that a working group look into the issue.

- Representatives concluded that a recreational fishery for gaspereau should not be permitted.
- The Mi'Kmaq Fish and Wildlife Commission requested that any new sites for gaspereau dipping be awarded to the Commission.
- Stevens reviewed current license policy and recommended that the committee review the policy and provide advice. It was agreed that a future meeting (to be held June 7) should be held to focus on licensing policy.
- The new dam and fishway on the Barrington River was stated to provide inadequate fish passage. G. Stevens agreed to have appropriate DFO staff examine the situation.

7. RECOMMENDATIONS:

a.) Pertaining to Assessment

- No assessment was provided

b.) Pertaining to next year's workplans

- Continue liaison with NSPC regarding the Lake Vaughan fishway counts of gaspereau

Other Concerns:

	Anne Sweeney DFO Yarmouth
NAME OF PRESENTER	**NAME OF RAPPORTEUR**

MACTAQUAC GASPREAU

1. SPECIES / STOCK:
Mactaquac Gaspreau

2. ARRANGEMENTS:
DATE: April 4, 1997
TIME: 9:00
LOCATION: Keddy's Fort Howe Hotel, Salon C.

3. FORM OF CONSULTATION (Science Workshop, ZMAC, ETC..)
- Shad/Gaspereau Advisory Committee Meeting

4. PARTICIPANTS (Name and Affiliation)

AGENDA ITEM 1: Introduction

Name	Address	Phone	FAX
R. G. Robinson	Cody R. R. #1	488-2224	488-2831
Joe Bastarache	Ind. Buyer/ Seller	533-3828	532-8033
Rod Monahan	DFO Saint John	636-5051	636-5292
Brian Jessop	DFO Halifax	426-2158	
Dale Russell	RFStriped Bass Assoc.	642-4214	
Leonard Craig	Saint John	672-7479	
Gerald Donner	Saint John	674-2142	
Elmer Dixon	Hampton	832-6992	
John McDade	Saint John	672-2080	
David Gorham	Independent Fisher	468-2866	
Marianne Janowicz	DFA Fredericton	453-2252	453-5210
Don Brown	DFO St. Andrews	529-5850	529-5858
Carol Ann Rose	DFO St. Andrews	529-5850	529-5858
Greg Stevens	DFO Halifax	426-5433	426-9683
Louine Riva	DFO St. Andrews	529-5850	529-5858

******A notice of this meeting was sent to Peter Cronin but went to DFA rather then DNRE by mistake. It is not know if it was redirected to DNRE.****** **ACTION**

5. NEW INFORMATION BROUGHT FORWARD

AGENDA ITEM 2: Review of Minutes of Previous Meeting - minutes accepted.

AGENDA ITEM 3: Science Update - presentation given by Brian Jessop (see attached)

AGENDA ITEM 4: Management Plan for 1997 -

- Fishers present indicated that they experienced a better winter fishery. The fishing commenced two weeks earlier then usual starting the last week of March. Catches were good.
- After much discussion about the effects of Mactaquac dam, it was agreed that the same management measures would be implemented for 1997 for escapement of both species i.e. 800K of Gaspereau and 200K of Alewives.
- Brian Jessop estimates that the fish at Mactaquac only accounts for 10% of the overall run, therefore any conservation concerns should be directed at the other 90% in other portions of the river system.
- Some concern was raised about the impact of aquaculture salmon escapees on shad and gaspereau in the river system. Some have been observed and do not appear in very good condition.

ACTION

- It was decided that an "Enforcement Sub Committee" was needed to develop monitoring protocol re arrival of salmon run. Don Brown and Rod Monahan are to set a meeting date for the near future.
- Brian Jessop indicated that the information is gathered off the log books and one must assume that the fishers are being honest.

AGENDA ITEM 5: Other Business

River Management

- Reg Robinson gave presentation
- met March 8, 1997 Lakeville Corner
- their aim is to manage all species in the river
- to develop relationship with Fisheries and Oceans to resolve problems
- develop a proposal & circulate to other committees
- want to develop a partnership & co-management strategy
- Bass Assoc. to participate contact person is Leonard Craig

Terms of Reference

- it was decided that a new draft would be prepared by Greg Stevens and members are asked to provide comments for input (attached) and a finalized draft will be presented at the next meeting.

Stripped Bass Members

- contact person for the Bass Association is Leonard Craig at 672-7475.

AGENDA ITEM 6: Conclusion

- Meeting adjourned at 12:35 p.m.

6. CONCERNS RAISED BY CLIENTS (include concerns, plus follow-up action/response made or committed).

7. RECOMMENDATIONS:
a.) Pertaining to Assessment

b.) Pertaining to next year's workplans

Other Concerns:

_____ _____

NAME OF PRESENTER **NAME OF RAPPORTEUR**

MIRAMICHI RIVER GASPEREAU

1. SPECIES / STOCK:
- Miramichi River Gaspreau

2. ARRANGEMENTS: DFO Eastern New Brunswick Area Office
DATE: April 25, 1997
TIME: 10:00 to 16:00
LOCATION: Wharf Inn, Newcastle, New Brunswick

3. FORM OF CONSULTATION (Science Workshop, ZMAC, ETC..)
- Gaspereau Fishery Advisory Committee

4. PARTICIPANTS (Name and Affiliation)
- Rheal Boucher, DFO Chief Resource Allocation, Eastern New Brunswick (Chair)
- Bob Allain, DFO Area Manager, Eastern New Brunswick
- Bill Scott, DFO Conservation and Protection, Chatham, New Brunswick
- Gerald Chaput, DFO Science, Diadromous Fish Division, Moncton, New Brunswick
- Fishers, representatives from MFU, New Brunswick government representative (approx. 20 in total)

5. NEW INFORMATION BROUGHT FORWARD (what? by who?)-*(Only a brief description is requi*
- Reviewed status of Miramichi River gaspereau fishery, 1995 and 1996
- No new data brought forward by any groups, fishers or representatives

6. CONCERNS RAISED BY CLIENTS (include concerns, plus follow-up action/response made or committed). - *(Only a brief description is required)*
- Continued excessive effort in several smaller rivers in New Brunswick (Pokemouche, Tracadie, Richibu
- Bycatch concerns for trout in Pokemouche River as a result of stocking of trout in the Pokemouche Rive by local angling association in recent years conflicting with historical gasperau fishery

7. RECOMMENDATIONS: *(Only a brief description is required)*
a.) Pertaining to Assessment

b.) Pertaining to next year's workplans

Other Concerns:
- Established a two-year management plan (seasons, regulations) barring unforeseen circumstances

Gérald Chaput	Gérald Chaput
NAME OF PRESENTER	**NAME OF RAPPORTEUR**

PRINCE EDWARD ISLAND DIADROMOUS SPECIES (EEL, GASPEREAU, SILVERSIDE, SMELT)

1. SPECIES / STOCK:

- Prince Edward Island diadromous species (eel, gaspereau, silverside, smelt)

2. ARRANGEMENTS:

DATE: 18 February 1997
TIME: 9:30-15:20
LOCATION: DFO Area Office, Charlottetown

3. FORM OF CONSULTATION (Science Workshop, ZMAC, ETC..)

- Estuarine species advisory committee.

4. PARTICIPANTS (Name and Affiliation)

- Jim Jenkins, chair - DFO Charlottetown
- David Cairns - DFO Science
- Francis Morissey, fisherman
- John Arsenault, fisherman
- Eric Carter, fisherman
- Troy Matthews, fisherman
- Herby Ashley, fisherman
- Mike Martel, fisherman
- Mike Gauthier, fisherman
- Alvin Gunn, fisherman

5. NEW INFORMATION BROUGHT FORWARD

- There is little gaspereau fishing in western PEI because most fishermen there use herring as lobster bait. Most gaspereau fishing is in central and some parts of eastern PEI. The Fortune River gaspereau run was wiped out by intensive beach seining.
- Undersize eel catches were up in 1996 from previous years. Some participants reported higher landings of legal eels than in previous years, but others reported lower landings than previous years.

6. CONCERNS RAISED BY CLIENTS (include concerns, plus follow-up action/response made or committed).

- Seals are a matter of concern in the gaspereau, silverside, and smelt fisheries. Seals do not damage silverside nets, but they greatly reduce the catches. Seals often drown in smelt nets set in winter. Seals will visit nets if there is open water within four miles.
- Silverside fishermen requested a 5% allowable bycatch of smelts.
- The use of sweep nets in the gaspereau fishery is a matter of concern because sweep nets are very effective and can wipe out river stocks. Sweep nets are not authorized by regulations but are nevertheless used by dipnet licence holders. It was proposed that dipnet licences be converted into trap licences. This proposal had some support amongst participants.

- Participants would like to see a ban on the spreading of vegetable oil on the water as an aid to detecting eels
- Participants would like to have the right to retain and sell winter flounder taken as bycatch in fisheries for estuarine species.
- Several inquiries have been received regarding elver fisheries. Participants advocate a continuation of the ban on elver fishing on PEI.
- There was a request at last year's advisory meeting to impose a daily limit of 60 in the recreational spear fishery for smelts. This was not acted on. Such a restriction might be implemented under the planned marine recreational fisheries licence.

7. RECOMMENDATIONS:

a.) Pertaining to Assessment

- None

b.) Pertaining to next year's workplans

- None.

Other Concerns:

- **None**

David Cairns	David Cairns
NAME OF PRESENTER	**NAME OF RAPPORTEUR**

Part III

Appendices

APPENDIX 1.1

Science Branch
Maritimes Region
343 Archibald Street
Moncton, N.B. E1C 9B6

March 18, 1997

(Title) (FirstName) (LastName)
(Job Title)
(Company)
(Address 1)
(Address 2)
(City), (State) (Postal Code)

Dear (Title) (Last Name)::

This letter gives notice of the scientific peer review session for the Maritimes Region's non-salmon diadromous fish stocks. This review will encompass the Region's principal gaspereau stocks and the main non-salmon diadromous stocks on Prince Edward Island. In total, five assessment documents will be reviewed at this session.

The review will take place April 1 and 2, 1997, in the Miramichi Room (5th Floor, Room 544) of the Gulf Fishery Centre, 343 Archibald Street, Moncton, N. B. It will commence at 1:00 p.m. on Tuesday, April 1st (this is not an April fool), and conclude by noon the next day, April 2nd.

You and/or representatives of your organization are welcome to come and participate in the discussion of those stocks in which you have interest. Formal referees have been named for each stock presentation, but time is being made available for others, such as yourself, who might have questions or wish elaboration on a particular stock assessment.

Enclosed is a proposed agenda and schedule for presentation of the various stock assessments.

We hope your interests will be represented at the review. However, we are unable to assist with travel expenses.

Sincerely yours,

J. A. Ritter, Manager
Diadromous Fis Division
Attachment

APPENDIX 1.2

President Second Peter Barlow
Union of New Brunswick Indians
385 Wilsey Road
Comp. 44
Fredericton, N.B.
E3B 5N6

Dr. Alyre Chiasson
Department of Biology
Université de Moncton
Moncton, N.B.
E1A 3E9

Mr. Bob Crawford
Nova Scotia Department of Fisheries
R.R. #3
Antigonish, N.S.
B2G 2L1

Mr. Peter Cronin
Regional Biologist
R.R. #6
Fredericton, N.B.
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Dr. Allen Curry
Assistant Director
New Brunswick Cooperative
Fish & Wildlife Research Unit University of New Brunswick, Bag Service Number 45111
Cooperative Fish and Wildlife Research Unit
Department of Biology
P.O. Box 44555
Fredericton, N.B.
E3B 6E1

Mr. Bernie Dubee
Regional Biologist
80 Pleasant Street
Newcastle, N.B.
E1V 1X7

APPENDIX 1.2

Mr. Dave Gillis
Department of Fisheries and the Environment
Fisheries and Aquaculture Division
P.O. Box 2000
Charlottetown, P.E.I.
C1A 7N8

Mr. Murray Hill
Director of Inland Fisheries
Nova Scotia Department of Fisheries
P.O. Box 700
Pictou, N.S.
BOK 1H0

Mrs. Marianne Jonowicz
N.B. Department of Fisheries and Aquaculture
P.O. Box 6000
Fredericton, N.B.
E3B 5H1

Mr. John Kearney
Fundy North Fishermen's Association
291 Water Street
St. Andrews, N.B.
EOG 2X0

Mr. Tim Martin
Native Council of Nova Scotia
P.O. Box 1320
Truro, N.S.
B2N 5N2

Mr. Art Longard
N.S. Department of Fisheries
P.O. Box 2223
Halifax, N.S.
B3J 3C4

Mr. Tim Lutzac
Diadromous Fish Division Gulf Fisheries Centre
343 Archibald Street
Moncton, N.B.
E1C 9B6

APPENDIX 1.2

Mr. Dave Meerburg
Senior Adnadromous Fisheries Advisor
Department of Fisheries and Oceans
Ottawa, Ottawa

Mr.. Christopher Milley
Director
Mi'Kmaq Fish and Wildlife Commission
Afton First Nation
Afton, N.S.
BOH 1A0

Mr. Laurent Paulin
Diadromous Fish Division Gulf Fisheries Centre
343 Archibald Street
Moncton, N.B.
E1C 9B6

Mr. John F. Prosper
Director
Mi'Kmaq Fish and Wildlife Commission
Afton First Nation
Afton, N.S.
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Mr. R. Robinson
Cody's, R.R. No. 1
Queens Co., N.B.
EOE 1E0

Mr. Arthur Smith
Director
P.E.I. Department of Environmental Resources
Fisheries and Wildlife Branch
P.O. Box 2000
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Mr. Lee Sochasky
St. Croix International Waterway Commission
#8 - # 1 Highway
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APPENDIX 1.2

Ms. Sandra Splude
President
New Brunswick Aboriginal Peoples Council
320 St. Mary's Street
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Mr. Greg Stevens
Department of Fisheries and Oceans
1505 Barrington Street
P.O. Box 550
Halifax, N.S.
B3J 2S7

Mr. Terry Toner
N.S. Power Inc.
Box 910
Halifax, N.S.
B3J 2W5

Mr. Graham Tuplin
President
Native Council of Prince Edward Island
33 Allen Street
Charlottetown, P.E.I.
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Mr. Fred Wheaton
Chairman, Fisheries Committee
Fish and Wildlife Federation
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Mr. Dave Younker
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Fisheries and Aquaculture Division
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Mr. Fred Whoriskey
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APPENDIX 1.3

Mr.. Ross Claytor
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Mr. Shane O'Neil
Fisheries and Oceans
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Mr. Peter Amiro
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Mr. Bob Crawford
Nova Scotia Department of Fisheries
R.R. #3
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B2G 2L1

Mr. David Cairns
P.E.I. Area Office
Charlottetown, PEI

Mr. Heath Stone
Pelagics Assessment Biologist
St. Andrews Biological Station
Science Sector
St. Andrews, N.B.
EOB 2X0

Mrs. Andrea Locke
Fisheries and Oceans
Gulf Fisheries Center
343 Archibald Street
Moncton, N.B. E1C 9B6

APPENDIX 1.3

Mr. Larry Marshall
Fisheries and Oceans
Maritimes Center, 18th Floor South
1505 Barrington Street, P.O. Box 550
Halifax, N.S.
B3J 2S7

APPENDIX 1.4

Attendees:	Referee Yes/No	Affiliation	Location	Days in attendance April 1-2/97
Ritter, John	No	DFO, Science	Chair - Moncton	1-2
Amiro, Peter	Yes	DFO, Science	Halifax	1-2
Atkinson, Gary	No	DFO, Science	Moncton	1-2
Bob Harnett	No	PEI Native People Council	33 Allen Street, Charlottetown	1-2
Cairns, David	Yes	DFO, Science	Charlottetown	1-2
Chaput, Gérald	No	DFO, Science	Moncton	1-2
Claytor, Ross	Yes	DFO, Science	Moncton	1-2
Jessop, Brian	No	DFO, Science	Halifax	1-2
Jones, Ross	No	DFO, Science	Moncton	1-2
LeBlanc, Paul	No	DFO, Science	Moncton	1-2
Locke, Andrea	Yes	DFO, Science	Moncton	None
Marshall, Larry	Yes	DFO, Science	Halifax	1-2
Moore, Dave	No	DFO, Science	Moncton	1-2
Mowbray, Fran	No	DFO, Science	Moncton	1-2
O'Neil, Shane	Yes	DFO, Science	Halifax	1-2
Stone, Heath	Yes	Fisheries Biological Station	St. Andrews	1-2

APPENDIX 1.5

AGENDA
FOR 1996 DIADROMOUS FISH STOCK ASSESSMENT PEER REVIEW
April 1-2, 1997

Tuesday, April 1

PM	1:00	- Introduction and Orientation
	1:15	- Margaree Gaspereau (Gerald Chaput) - Rapporteur (Paul LeBlanc)
	3:00	- Coffee
	3:15	- PEI Non-salmon Diadromous stocks (David Cairns)- Rapporteur (Fran Mowbray)
	4:45	- Atlantic and Fundy Gaspereau stocks (Brian Jessop)-Rapporteur (Ross Jones)

Wednesday, April 2

AM	8:30	- Mactaquac Gaspereau (Brian Jessop) - Rapporteur (Gary Atkinson)
	10:00	- Coffee
	10:15	- Miramichi Gaspereau (Gerald Chaput) - Rapporteur (Dave Moore)
	12:00	- Wrap-up

APPENDIX 1.6

1996 DIADROMOUS FISH STOCK ASSESSMENT PEER REVIEW SCHEDULE (gaspereau stocks)

April 1-2, 1997

SPECIES	ASSESSMENT STOCK	LEAD	REFEREE #1	REFEREE #2
GASPEREAU	Margaree Gaspereau	Chaput	Claytor, Ross	Marshall, Larry
	PEI Non-salmon Diadromous	Cairns	Locke, Andrea	O'Neil, Shane
	Atlantic and Fundy Gaspereau	Jessop	Amiro, Peter	Stone, Heath
	Mactaquac Gaspereau	Jessop	Stone, Heath	Cairns, David
	Miramichi Gaspereau	Chaput	Claytor, Ross	N/A